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EXAMINER

BELOUSOV, ANDREY

ART UNIT

PAPER NUMBER

2174

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,666	Applicant(s) LAMBERT ET AL.	
	Examiner ANDREY BELOUSOV	Art Unit 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the amendment filed on October 16, 2007. Claims 1-11 and 14-23 are pending and have been considered below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11, 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Parker et al (5,600,789.)

Claims 1, 21: Parker et al. discloses in a computerized system environment including computer-executable instructions, and one or more interfaces for accessing the computer-executable instructions, a method and computer program product having computer-executable instructions thereon, of testing the computer-executable instructions through each of the one or more interfaces using a single testing program, the method comprising the acts of:

- a. identifying a plurality of interfaces (“GUI-specific instantiations,” 5:43-45; Fig. 1: “1-2-3 for OPENLOOK”, “1-2-3 for Motif”, etc.) that are intended to access an

identified application program ("logical" application," e.g. 1-2-3 application; 5:43-45);

- b. identifying an application program interface ("GUI superclass," 5:63-66) that is common to each of the plurality of interfaces that can access the application program, such that a function of the application program that can be accessed by each of the plurality of interfaces can be tested (Abstract);
- c. providing at least one representation of a first value ("T commands embodied in the test script", e.g. "MENU_Pick("File/Open")" and "TF_SetText("\$Filename", "A"), Table 2) to the application program through the common application program interface (8:26-27);
- d. receiving a result from the application program (11:57-12:31); and
- e. based on the value of the result from the application program, determining that each of the plurality of interfaces is interoperable with the application program (i.e. validation: 3:63-67; 11:57-12:31.)

Claim 2: Parker et al. discloses the method as recited in claim 1, wherein the at least one representation of the first value is unique to at least one of the plurality of interfaces (8:26-53.)

Claim 3: Parker et al. discloses the method as recited in claim 2, wherein the at least one representation of the first value is identified automatically prior to providing the at least one representation to the application program (3:63; 8:26-53.)

Claim 4: Parker et al. discloses the method as recited in claim 1, wherein the plurality of interfaces includes one or more of a telephone user interface, a graphical user interface, a command-line interface, and a machine-based interface (Fig. 15: 808, 810, 814.)

Claim 5: Parker et al. discloses the method as recited in claim 1, wherein the identified application program is an application program to be tested (Fig. 3; 6:56-7:12.)

Claim 6: Parker et al. discloses the method as recited in claim 1, further comprising generating a test program that is configured to access the identified application program through the identified common application program interface (7:13-30.)

Claim 7: Parker et al. discloses the method as recited in claim 6, wherein the first value is provided to the application program by the test program through the identified common application program interface (3:63-67; Fig. 15: 800, 802, 806, 810.)

Claim 8: Parker et al. discloses the method as recited in claim 6, further comprising identifying one or more other application program interfaces (i.e. a set of other GUI-independent references: 4: 9-12; or common classes: 17:23) that are common to the identified user interfaces (Fig. 15: 802.)

Claim 9: Parker et al. discloses method as recited in claim 8, further comprising converting the test program such that it is configured to access the identified application program through at least one of the one or more other application program interfaces (Fig. 13; 32:30-48.)

Claim 10: Parker et al. discloses the method as recited in claim 1, further comprising receiving one or more results from the application program through the corresponding one or more interfaces that are intended to access the application program (11:57-12:31.)

Claim 11: Parker et al. discloses the method as recited in claim 10, further comprising, based on the received one or more results, identifying an expected result by which the received one or more results can be compared (11:57-12:31.)

Claim 23: Parker et al. discloses the method of claim 1, wherein providing at least one representation of a first value to the application program through the common application program interface comprises testing various isomorphisms of a value such that different forms of one or more values may be tested (column 6: Table 1.)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cordero et al. (20010044339) in view of Parker.

Claim 14, 22: Cordero et al. discloses, in a computerized system environment including computer-executable instructions, and plurality of interfaces for accessing the computer-executable instructions, a method of testing an application program through each of the plurality of interfaces using a single testing program, the method comprising:

- a. identifying a plurality of interfaces that are intended to access an application program (par. 0059);
- b. sending a first value to the application program for each of the plurality of identified interfaces, wherein the first value is sent using an application program interface ("low-level, cross-platform, device independent layer of the comm engine" par. 75) that is common to each of the plurality of identified interfaces (par. 0052, 0075);
- c. receiving a plurality of results from the application program, wherein each result in the plurality corresponds to an identified one of the plurality of interfaces (par. 0052, 0055);

However, Cordero et al. does not explicitly disclose:

- d. comparing the plurality of results with each other to identify an expected result.

Parker discloses a method for an automated GUI interface testing, wherein the plurality of results are compared with each other (28:7-11) to identify an expected result (11:57-12:31.) Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to compare the plurality of results with each other to identify an expected result, as taught by Parker, in the method as disclosed by Cordero. One would have been motivated to identify an expected result by comparing a plurality of results with each other so as to determine the functionality of the application program and to subsequently perform additional testing utilizing the expected result (Parker, 11:65-12:8.)

Claim 15: Cordero et al. and Parker disclose the method as recited in claim 14. Cordero further discloses comprising sending a next value to the application program for each of the plurality of identified interfaces (par. 055.)

Claim 16: Cordero et al. and Parker disclose the method as recited in claim 15. Cordero further discloses, further comprising receiving a next result from the application program that is based in part on the next value that has been sent to the application (par. 055.)

Claim 17: Cordero et al. and Parker disclose the method as recited in claim 16. Cordero further discloses, further identifying that the application is interoperable with at least one of the identified interfaces by comparing the next result with the expected result (par. 0012.)

Claim 18: Cordero et al. and Parker disclose the method as recited in claim 14. Cordero further discloses, further comprising generating a test program that is configured to access the application program through the identified common application program interface (par. 0069.)

Claim 19: Cordero et al. and Parker disclose the method as recited in claim 18. Cordero further discloses, further comprising identifying one or more other application program interfaces that are common to the identified user interfaces (par. 0013, application code, hardware devices, comm. Protocols.)

Claim 20: Cordero et al. and Parker disclose the method as recited in claim 19. Cordero further discloses, further comprising converting the test program such that it is configured to access the identified application program through at least one of the one or more other application program interfaces (par. 0013 - (software developer thus need only code (convert) to the cross-platform core, which is always the same regardless of the hardware platform or operating system)).

Response to Arguments

5. Applicant's arguments, filed October 16, 2007, with respect to the rejection of claims 1, 14 and 21-23 under 35 U.S.C. 102(b) and 103(a) have been fully considered but are persuasive.

6. Applicant's argument that Parker does not appear to teach "identifying a plurality of interfaces that are intended to access an identified application program" or "identifying an application program interface that is common to each of the plurality of interfaces that can access the application program...." has been fully considered but is not persuasive. The above mentioned limitations are disclosed in Parker as follows:

identifying a plurality of interfaces ("GUI-specific instantiations," 5:43-45; Fig. 1: "1-2-3 for OPENLOOK", "1-2-3 for Motif", etc.) that are intended to access an identified application program ("logical" application," e.g. 1-2-3 application; 5:43-45); identifying an application program interface ("GUI superclass," 5:63-66) that is common to each of the plurality of interfaces that can access the application program.

Applicant's argument that, "Cordero simply illustrates that a programmer can program to a cross platform core to simplify programming, rather than testing" has been fully considered but is not persuasive. In paragraph 29, Cordero teaches that "the cross-platform core has previously been tested and integrated with a plurality of hardware platforms."

Applicant's argument that, "Parker seems to apply to a single test interface testing a single application" has been fully considered but is not persuasive, as specified above in response to Applicant's first argument.

Applicant's argument that Parker appears to teach testing by verifying that an expected even occurred, rather than identifying an expected result, and comparing the multiple results with each other, has been fully considered but is not persuasive. In

column 28, lines 7-11, Parker teaches that results from one interface are used to validate the correctness of a second interface.

Applicant's argument that Parker does not disclose testing various isomorphisms of a value such that different forms of one or more values may be tested, is fully considered but is not persuasive. The cited Table 1 in Parker illustrates that different GUI-specific commands need to be utilized to send the same 'value' to the application, such as the example disclosed in column 8, line 43, "an abstract superclass command such as "get the button text label" would be translated into the GUI-specific command "XTGetValues" in the case of X Windows(tm)." Another variant to "get the button text label" would be sent depending on the GUI to which the command is issued. Alternatively, Parker also discloses testing for variants in column 29, lines 27 through 38, including specifically for accommodating for differing formats of dates.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Belousov whose telephone number is (571) 270-1695. The examiner can normally be reached on Mon-Fri (alternate Fri off) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB
December 13, 2007

/David A Wiley/

Supervisory Patent Examiner, Art Unit 2174